Grower Perceptions of Two-Spotted Mite Control

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2006 Two-spotted Mite(TSM) Grower Perceptions Survey

- Prompted by:
- Significant damage in St. Croix County Soybeans-Drought Damaged Areas
- TSM incidence extremely sproradic in Midwest.
- Little knowledge/experience with TSM
- Need to document grower experiences to add to TSM knowledge base.

TSM Detection

- Visual observation of TSM or TSM damage


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TSM Survey

- Mailed to 18 soybean producers.
- Returned by 13 producers.
- 48 fields documented.

TSM Detection

- 1st observation-July 15
- Latest observation-August 15

TSM Identification &Treatment

- Time between identification and treatment was:

  Shortest - 1 day

  Longest - 27 days

  Avg. 7.7 days (4.4 days)

TSM Scouting

- 8 cited 2 or more scouting sources
- 8 – Producer
- 6 – Dealer Agronomist
- 4 - Independent Crop Consultant
- 4- UW-Extension Ag Agent

TSM Scouting

- 5 cited a single scouting source
- 2 – Independent Crop Consultant
- 2 – Dealer Agronomist
- 1 – Producer

TSM Treatment

- Portion of field treated
- 79% reported whole field
- 23% reported portion of field
- 7 - perimeter only
- 3 - % of field

TSM Treatment

- Number of times field treated
- 47 treated 1X
- 1 treated 2X

- One producer did not treat.

TSM Treatment Recommendations

- 7 cited multiple sources
- 3 – Independent Crop Consultants
- 5 – Dealer Agronomists
- 4 – Fellow Producer
- 4 – UW-Extension Ag Agent

TSM Treatment Recommendations

- 5 cited single source
- 2 – Independent Crop Consultant
- 3 – Dealer Agronomist

TSM Treatment

- Insecticide
- 75% applied Lorsban
- 25% applied Dimethoate

TSM Treatment Sprayer Specs

- Spray Rate
- Avg: 29.2 gallons/acre
- Range: 15 GPA - 60 GPA
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- Sprayer Pressure
- Avg: 53 psi (45.5 psi)
- Range 37.5 psi – 90 psi (37.5-60)
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TSM Treatment Costs

- Average treatment cost: $6.42/acre**
- Range: $4.50-$13.50/acre

** material only and custom application

TSM Damage Observations

- Visual differences between treated and untreated.

  Yes – 45%

  No - 55%

- Visual differences between varieties.

  Yes – 46%

  No – 54%

TSM Treatment Yield Loss Prevented

- Estimated Yield Loss Prevented by Treatment

  Average: 4 bushels/acre

  Range: 3-7 bushels/acre

TSM Grower Summary

- TSM detection difficult
- Scouting for TSM important
- TSM damage sporadic-Drought related
- Growers use multiple scouting and treatment recommendation sources
- Insecticide of choice were: Lorsban and Dimethoate

TSM Grower Summary

- Treatment cost range: $4.50-$13.50/acre
- Estimated yield loss prevented: 4 bu/acre
- Visual indication of TSM damage differences between varieties.

TSM Future Research

- Development of standardized field research protocol for studying TSM when incidence occurs in Midwest.
- Development of understanding of potential yield loss, treatment timing, economic thresholds and varietal differences.


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